# **Bias Tee**

## BT-0050-1 50 KHz to 50 GHz, 500 mA and 25 VDC, 2.4mm

# HZ-THZ

### Description

HZ-THZ BT-0050-1 is a 2.4mm bias tee (also known as bias T) that operates from 50 KHz to 50 GHz with a bias rating of 25 VDC and 500 mA. This bias tee is configured with 2.4mm inputs on the RF ports and 2.4mm on the bias port. BT-0050-1 2.4mm bias T offers good electrical performance featuring 1.5 dB insertion loss and 30 dB isolation. Bias tees are typically used to inject a DC signal into an RF path such as when biasing an amplifier or any other active device, supplying power to the connected output without disrupting the RF signal. They can also be used as DC returns to provide a ground return path for the input device or DC blocks to prevent direct current signals from flowing through the output device. HZ-THZ bias tees are available in various connector configurations over different frequency bands to fit your needs, all of which shipped worldwide the same day.

#### **Features**

- Broadband: 50 KHz to 50 GHz
- Low Insertion Loss
- Isolation 30 dB
- 500 mA / 25 VDC Bias
- RF Power 1 W Max

### **Applications**

- Amplifier Biasing
- Coax
- Wireless Systems
- DC Return / Block
- Test and Measurement
- Transmitting Power With a Single
- Communication Systems

### Configuration

RF Port Connector DC/RF Port Connector DC Port Connector 2.4mm Female 2.4mm Female SMA Female

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### **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.00005		50	GHz
Impedance		50		Ohms
VSWR		1.5	1.8	:1
Insertion Loss		1.5	2.5	dB
RF to Bias Isolation		30		dB
DC Current			500	mA
DC Voltage			25	Vdc
RF Power			1	W
DC Resistance		0.8		Ω
Inductance		470		uH
Capacitance		0.1		uF
Risetime/Falltime		10		ps
Operating Temperature	-55		+105	°C
Storage Temperature	-55		+125	°C

Electrical Specification Notes:

Values at +25°C, sea level.

## **Mechanical Specifications**

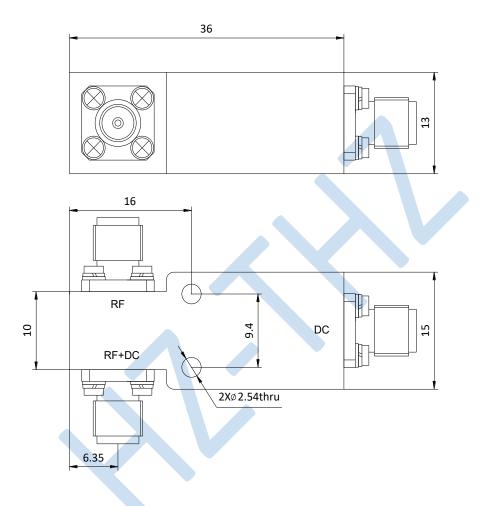
1.72 in [43.80 mm]
1.20 in [30.60 mm]
0.51 in [13.00 mm]
0.07 lbs [30.00 g]
Customized

## **Outline Drawings**

Unit: mm Tolerance: ±0.05 mm

## **Bias Tee**

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### **How To Order**

#### BT-0050-1

Pls send request to sales@hz-thz.com.